Claims

1. A monoclonal antibody that can bind to the IL12R ß2 chain expressed on the cell surface of human T lymphocytes, where said binding prevents IL12R ß2 chain-mediated STAT4 phosphorylation.

2. A monoclonal antibody that can bind to the IL12R ß2 chain expressed on the cell surface of human T-lymphocytes, where said binding prevents the IL12R ß2 chain from dimerization to the IL12R ß1 chain.

3. A monoclonal antibody that can bind to the IL12R ß2 chain expressed on the cell surface of human T lymphocytes, where said binding prevents IL12R ß2 chain-mediated STAT4 phosphorylation and prevents the IL12R ß2 chain from dimerization to the IL12R ß1 chain.

4. A combination of a monoclonal antibody of ~~any one of claims 1-3~~ claim 1 or part thereof, and an autoantigen, peptide fragments of an autoantigen or a modified form thereof.

5. A combination according to claim 4, wherein said autoantigen is selected from myelin basic protein, collagen type II, human cartilage glycoprotein 39, heat shock proteins, insulin, glutamate decarboxylase and α-fodrin.

6. A combination of a monoclonal antibody of any one of claims 1 or part thereof and a second monoclonal antibody.

7. A combination according to claim 6, wherein said second monoclonal antibody is selected from antibodies to co-stimulatory receptors on T cells or antigen presenting cells, especially CD40, CD40L, CD80 and CD86.

8. A pharmaceutical composition comprising the antibody of ~~any one of claims 1-3 or the combination of any one of claims 4-7.~~ claim 1 or the combination of claim 4.

9.   A pharmaceutical composition according to claim 8, comprising a heat shock protein or peptide fragments of said heat shock protein for the stimulation of type 2 cytokine producing regulatory T cells.

10.   A method for treating autoimmune diseases, the method comprising administering to a patient in need of such treatment a therapeutically effective amount of a pharmaceutical composition of claim 8 or 9.